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> All construction projects have risks. No amount of legal drafting can eliminate risk for any of the participants in the process. As with environmental issues and every other aspect of the project, the objective is not the elimination of risk but the proper identification and allocation of risk to the appropriate participant.[1]

With the recent increase in environmental awareness and the associated flood of regulation and litigation, all aspects of life in the United States feel some impact from issues associated with the environmental movement. The construction industry is not exempt.[2]

Environmental issues affect the construction industry in a number of ways. There are as many as 30,000 sites in the United States

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[1] Arthur T. Kornblut, *How to Lessen the Environmental Risks of the Design Professionals*, 8 Prac. Real Est. Law. 6, 29 (Nov. 1992).

[2] This article adopts a broad definition of the term "environment," as applied to the construction industry. Accordingly, not only will an environmental issue include the remediation or abatement of hazardous substances from a job site, but also the effect of these substances on the health of employees or third parties, the effect of environmental permitting requirements on a project, and restrictions on the construction process because of the presence of endangered species or protected wetlands. All of these environmental issues pose the risk of causing unanticipated costs and problems on a construction project.

For ease of reference, the phrase "environmental issue" will include all of the above issues. More specific references to the nature of the environmental issue will be used when necessary.

currently contaminated by toxic chemicals.[3] Under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA),[4] contractors and owners alike can be held responsible for the costs associated with the remediation of these sites.[5] In addition, millions of tons of asbestos are still located in existing structures.[6] Routine construction activities can unexpectedly confront many of these conditions. Moreover, as a result of these conditions and the restrictions imposed by environmental laws, the construction industry often is intentionally involved with the remediation of these hazardous waste sites, acting as response action contractors.[7]

Government regulation of environmental issues also affects the construction industry in a number of other ways. Environmental permitting requirements may halt construction on a job.[8] In addition, construction activities by federal agencies may be delayed in order to comply with other environmental laws such as the National Environmental Protection Act[9] and the Endangered Species Act.[10] Members of the construction industry are often faced with inconsistent state, local, and federal environmental regulations.[11] To make

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[3] *See Executive Summary of EPA Alternative Superfund Contracting Strategy Report*, 22 Env't Rep. (BNA) 1505, 1506 (Oct. 1, 1991).

[4] 42 U.S.C. §§ 9601-75 (1988).

[5] *See, e.g.*, Kaiser Aluminum & Chem. Corp. v. Catellus Dev. Corp., 976 F.2d 1338, 1342-43 (9th Cir. 1992) (holding that CERCLA may apply to participants in a construction project); Tanglewood East Homeowners v. Charles-Thomas, Inc., 849 F.2d 1568, 1573-74 (5th Cir. 1988) (same).

[6] *See* Gregory W. Hummel, *Dealing with Asbestos-Containing Materials in the Construction Industry*, 4 PRAC. REAL EST. LAW. 2, 12 (Mar. 1988); *see also* J. Mark Morford, *Asbestos: New Twists in Ancient Fibers — An Asbestos Liability Primer*, 5 J. ENVTL. L. & LITIG. 1, 2 (1990).

[7] *See* Michael R. Charness & Eric M. Drattell, *Hazardous Waste Disposal And Cleanup Contracting*, *in* DIFFERING SITE CONDITION CLAIMS 207, 208-09 (Robert F. Cushman & David R. Tortorello eds., 1992).

[8] *See* Alabama Dept. of Envtl. Management v. Wright Bros. Constr. Co., 604 So.2d 429, 430 (Ala. Civ. App. 1992) (grading contractor incurred civil penalties for allowing sediment from construction site to flow into stream without a permit); People v. Kerr-McGee Chem. Corp., 568 N.E.2d 921, 927 (Ill. App. Ct. 1991) (construction of facility enjoined until state environmental construction permit requirements are complied with).

[9] 42 U.S.C. §§ 4321-70 (1988).

[10] 16 U.S.C. §§ 1531-44 (1988); *see also* TVA v. Hill, 437 U.S. 153 (1978) (risk to endangered "snail darter" species delays construction of dam).

[11] One such situation confronted a developer who, after clearing the land for a residential development, buried predominantly organic debris on the site. Upon decomposition of this debris, methane gas was released, entering the basements of several of the homes. The developer was sued in both federal and state courts, under their respective statutes, for disposal and release of an allegedly hazardous waste. The state claim prevailed, but the federal claim failed because of differing interpretations of whether the dis-

things worse, what seems like a harmless construction activity may result in liability under environmental laws.[12]

The discovery of unanticipated environmental contamination on a construction site has the potential to be extremely costly to either the owner, contractor, or both.[13] Assessing the costs associated with environmental issues is often difficult.[14] Participants in construction projects involved with the remediation or removal of hazardous substances can anticipate some of the environmental issues that may arise. These cleanup contractors will still face uncertainty, however, since "the magnitude of a hazardous waste removal and cleanup contract often increases dramatically after the work has begun when the actual site conditions are uncovered."[15] Others, such as the typical building or excavation contractor, are often neither aware of hazardous substances or other environmental issues nor expect them to arise at the site in which they are working.[16] The contractor or owner cannot simply choose to ignore these environmental issues.[17]

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carded debris, and resulting methane, was "hazardous waste" under the applicable statutes. *Compare* T.V. Spano Bldg. Corp. v. Department of Natural Resources & Envtl. Control, 628 A.2d 53, 60 (Del. 1993) (holding that construction waste is hazardous waste under state law), *with* Gallagher v. T.V. Spano Bldg. Corp., 805 F. Supp. 1120 (E.D. Del. 1992) (failing to find liability under federal law since construction waste was not "hazardous").

[12] *See, e.g., Wright Bros. Const. Co.*, 604 So.2d 429, 430 (Ala. Civ. App. 1992) (grading contractor incurred civil penalties for allowing sediment from construction site to flow into stream); *T.V. Spano Building Corp.*, 628 A.2d 53, 60 (Del. 1993) (owner of development held liable for release of hazardous substance when decomposing construction site debris released toxic fumes).

[13] For example, the average cleanup cost of a site placed on CERCLA's National Priorities List is estimated at $21 to $30 million. *See* Earl K. Madsen et al., *Superfund Reauthorization: An Opportunity to Rectify Major Problems*, 24 Env't Rep. (BNA) 1020, 1024 (Oct. 1, 1993). Participants in a construction contract may also be faced with many other costs associated with environmental issues. *See infra* notes 65-90 and accompanying text.

[14] *See generally* Michael P. Emmert & Martha W. Murray, *Assessing Potential Damages From Environmental Exposure*, *in* DIFFERING SITE CONDITION CLAIMS 219, 220-24 (Robert F. Cushman & David R. Tortorello eds., 1992).

[15] Charness & Drattell, *supra* note 7 at 209; *see infra* part II.A.

[16] *See e.g.*, Kaiser Aluminum & Chem. Corp. v. Catellus Dev. Corp., 976 F.2d 1338, 1341-42 (9th Cir. 1992) (excavation contractor who did not contribute to the initial contamination of the site may be liable under CERCLA as an operator or transporter when it inadvertently dispersed contaminated soil while grading the site); *see also infra* part II.B.

[17] Several federal statutory and regulatory provisions require that, upon knowledge of a discharge or the presence of hazardous substances, notice must be given to the appropriate agency. *See, e.g.*, 42 U.S.C. § 9603(a) (person in charge must notify National Response Center of unpermitted releases); 40 C.F.R. § 117.21 (requiring owner or operator to report the discharge of a hazardous substance to the appropriate agency). Failure to comply with these mandates may subject the person to penalties, including criminal

Compliance with environmental statutes may disrupt contractual relations by delaying progress on a job and imposing other additional costs.[18] Because of the high costs involved and the difficulty in assessing damages, unanticipated environmental costs will often result in litigation between the owner and contractor.[19] These environmental issues affect all of the parties involved in the construction project in some manner, and, as a result, the parties will confront some important legal questions.[20] One commentator has observed the response of public contractors to the high level of risk that results from environmental issues:

> Some contractors have declined to undertake certain remediation . . . projects. Some contractors bid only on low-risk projects involving conventional technology located far from population centers. In undertaking work, they use conservative assessment methodologies, engage in redundant characterizations, and recommend permanent destructive technologies for waste (regardless of cost or feasibility) to minimize residual liability. Some contractors are creating shell corporations with limited assets to undertake high-risk jobs. Still others are inflating their bids to deal with any potential contingency.[21]

To avoid the use of such extreme measures, owners and contractors should prepare for the occurrence of unanticipated environmental costs and allocate liability for the costs before they occur.[22]

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liability. *See* CERCLA, 42 U.S.C. § 9603(b); *see also* United States v. Buckley, 934 F.2d 84 (6th Cir. 1991) (party to construction project held criminally liable under Clean Air Act for knowingly emitting asbestos into the environment and under CERCLA for failure to report the release of a hazardous substance).

Similar reporting provisions also exist in state environmental statutes and regulations.

[18] *See infra* notes 85-89 and accompanying text; *see also*, Inman & Assoc., Inc., 91-3 B.C.A. (CCH) ¶ 24,048 (1991) (cleanup of PCB spill resulted in more than five months of delay in work and three months of delay on final completion of the project); People v. Kerr-McGee Chem. Corp., 568 N.E.2d 921, 927 (Ill. App. Ct. 1991) (construction delayed until permits acquired).

[19] *See* Emmert & Murray, *supra* note 14, at 220-30.

[20] *See* Hummel, *supra* note 6, at 11. "[T]he owner, contractor, subcontractors, and design professionals, must confront serious legal questions, such as responsibility for the safety of building occupants and compliance with numerous legal requirements." *Id.*

While environmental issues obviously affect a broad range of parties, this article will focus on the relationship between the owner and contractor. In addition, throughout this article the term "owner" will describe either private or government entities that are participants in a construction project.

[21] John F. Seymour, *Liability of Government Contractors for Environmental Damage*, 21 PUB. CONT. L.J. 491, 522 (1992).

[22] These measures may be necessary when the parties are bound by the traditional fixed-price contract without any risk allocation provisions. Other contractual forms, such

The differing site conditions clause provides one method to effectively allocate the liability for unanticipated environmental costs that arise in the relationship between the contractor and the owner.

Without a contractual provision specifying otherwise, the contractor assumes the risk of any unanticipated costs that occur because of unexpected site conditions.[23] This rule holds true for unexpected environmental costs as well. Because contractors used to assume all risk for unexpected conditions, they either undertook expensive site investigations themselves or increased their bids to account for the costs of unknown risks.[24] The federal government began to discover that it could save money by agreeing to pay for a differing site condition when it did occur, rather than paying a contingency for the possibility, whether it occurred or not.[25] To avoid these problems, the federal government began using a risk-shifting contract clause, ultimately titled the differing site conditions clause, in all construction contracts.[26] The differing site conditions clause provides benefits to both the owner and the bidding contractor.

> [T]he presence of the [differing site conditions] clause works to reassure the bidder that they may confidently rely on the [representations of the owner] and need not include a contingency element in their bids. Reliance is affirmatively desired by the [owner], for if bidders feel they cannot rely, they will revert to the practice of increasing their bids.[27]

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as cost-plus, are risk shifting by nature, and may not require additional provisions to address unanticipated environmental issues. *See* John E. Beard III, *Contract Allocation of Risk of Differing Site Conditions*, *in* DIFFERING SITE CONDITION CLAIMS 27, 41-42 (Robert F. Cushman & David R. Tortorello eds., 1992). Even contracts which are apparently risk-shifting by nature, however, may actually fail to adequately address unanticipated environmental issues. *See e.g.*, Foley Co. v. United States, 11 F.3d 1032 (Fed. Cir. 1993) (litigation arises between the government and its hazardous waste removal contractor after unexpected quantity of hazardous sludge had to be removed under unit-price contract).

This article will focus on allocating risk under the fixed-price contract.

[23] United States v. Spearin, 248 U.S. 132, 136 (1918). Under certain circumstances, however, the contractor may escape liability for these costs under several common law theories, even without the differing site conditions provision in the contract. *See infra* notes 31-39 and accompanying text.

[24] Foster Constr. C. A. v. United States, 435 F.2d 873, 887 (Ct. Cl. 1970) [hereinafter *Foster*]. "Either alternative inflates the costs to the [owner]." *Id.*

[25] CONSTRUCTION & DESIGN LAW, CHANGED CONDITIONS §12.3a (National Institute of Construction Law, Inc., ed., 1989) [hereinafter CHANGED CONDITIONS].

[26] RICHARD J. BEDNAR ET AL., CONSTRUCTION CONTRACTING 571 (The George Washington University National Law Center ed., 1991). "This clause promotes the advantages of the competitive bidding system by allowing bidders to submit their lowest possible bid. It provides a contractual remedy (when the conditions are met) through negotiation rather than litigation." *Id.* at 571.

[27] *Foster*, 435 F.2d at 887; *see also* Baltimore Contractors, Inc. v. United States,

When a condition differs from those shown in the contract documents or the conditions are of an unusual nature, the differing site conditions clause provides for an equitable adjustment in the contract price.[28] The majority of private construction companies soon followed the federal government's lead by adopting similar provisions.[29]

Owners and contractors thus use the differing site conditions clause to avoid disputes arising out of unexpected or misrepresented site conditions. The construction industry has failed, however, to recognize that this clause may effectively allocate risk for the often exorbitant unanticipated environmental costs.

This article argues that the differing site conditions clause better allocates the costs arising from unanticipated environmental problems. Part I discusses the predominant differing site conditions clauses used in both private and public construction contracts. This discussion addresses how costs are treated when there is no differing site conditions clause in the contract, and the scope of the clause. Part II describes the different construction scenarios in which the differing site conditions clause can allocate risk for environmental costs. These include: (A) when a remediation or renovation contractor, aware of the presence of an environmental issue, encounters an environmentally related differing site condition; or (B) when a contractor, who does not expect to be confronted with environmental issues at all, confronts unanticipated environmental issues that increase construction or other costs. Finally, Part III proposes different methods of allocating risk for unanticipated environmental costs either using the standard differing site conditions clause or expressly including these issues in the contract. This article concludes that the differing site conditions clause, in either its standard form or amended, effectively allocates risks associated with unanticipated environmental issues in a construction project.

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12 Cl. Ct. 328, 334 (1987).

[28] BEDNAR, *supra* note 26, at 612-15.

[29] BEDNAR, *supra* note 26, at 571; *see infra* notes 50-53 and accompanying text.

I. THE DIFFERING SITE CONDITIONS CLAUSE

Contracting parties can negotiate almost any sort of clause to allocate the risk in the relationship. Two standard differing site conditions clauses, however, predominate in the construction market. These include the Federal Acquisitions Regulations (FAR) clause for federal government construction contracts, and the American Institute of Architects (AIA) clause for private or many state contracts. This section begins by discussing the ramifications of encountering an unanticipated condition without a differing site conditions clause in the contract. This is followed by an analysis of the standard differing site conditions clauses, their scope, and the types of conditions to which they apply.

A. Relief for Contractor Absent a Differing Site Conditions Clause

Absent a differing site conditions clause, the contractor is typically liable for costs incurred because of unforeseen conditions.[30] The contractor, however, may still gain relief under various common law and contractual theories. Some of these theories include: misrepresentation, breach of implied warranty, defective specifications, doctrine of superior knowledge, commercial impracticability, mutual mistake, and promises to pay.[31]

Several of these claims will arise when the contractor encounters the condition after the owner has improperly represented, or withheld, information. A claim of misrepresentation arises when the owner misleads the contractor "by a knowingly or negligently untrue representation of fact or a failure to disclose where a duty requires disclosure."[32] To prevail on a misrepresentation claim, however, the contractor must prove the existence of culpability in the representations by the owner.[33] Under the doctrine of superior knowledge, a government owner has a duty to disclose vital information obtained before the contract is awarded.[34] Contractors may

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[30] *See* United States v. Spearin, 248 U.S. 132, 136 (1918).

[31] *See generally* BEDNAR, *supra* note 26, at 558-568; Edward A. Hannan & M. Susan Maloney, *What's Different About Differing Site Conditions?*, 57 DEF. COUNS. J. 304, 310-311 (July 1990); CHANGED CONDITIONS, *supra* note 25, at §§12.2b.1-.6.

[32] *Foster*, 435 F.2d at 880-81.

[33] *Id.* at 881.

[34] Active Fire Sprinkler Corp., 85-1 B.C.A. (CCH) ¶ 17,868 (1984), *modified*, 85-3 B.C.A. (CCH) ¶ 18,217 (1985).

also make claims, based on the same facts as a misrepresentation claim, under the closely related contractual theories of breach of implied warranty and defective specifications.[35] These claims argue that "if the specifications are strictly observed, the government implicitly warrants that satisfactory performance will result."[36]

Absent a differing site conditions clause, a contractor may also gain relief under the exceptions to the general rule which holds a contractor liable for these conditions. A contractor need not complete a job when the differing site conditions would make it impossible or commercially impracticable to continue.[37] When both the contractor and owner are mutually at fault for not anticipating the condition, the contractor may also gain relief under the theory of mutual mistake.[38] Finally, a contractor may also prevail when the owner voluntarily promises to pay for costs incurred because of unanticipated conditions.[39]

The owner, however, may have defenses to these claims based upon other contractual provisions. An owner may argue that the contractor could not have relied on the owner's contractual representations when the contract contained exculpatory language or other disclaimers.[40] Disclaimers will not effectively defend against some claims.[41] Similar defenses may also rely on site inspection clauses in the contract, arguing the contractor would have learned of the condition had it made a sufficient investigation.[42] Furthermore, the owner also may employ the theory of commercial impracticability,

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[35] See *Spearin*, 248 U.S. at 137 (holding that contractor prevails because specifications provided an implied warranty that the conditions were adequate); Universal Contracting & Brick Pointing Co. v. United States, 19 Cl. Ct. 785, 793 (1990) (holding that government's characterization in specifications may be defective, preventing summary judgment); *but cf.* Utley-James, Inc. v. United States, 14 Cl. Ct. 804, 816 (1988) (refusing to allow plaintiff to prevail on a defective specifications claim).

[36] *Universal Contracting*, 19 Cl. Ct. at 793.

[37] CHANGED CONDITIONS, *supra* note 25, §12.2b.6; BEDNAR, *supra* note 26, at 558-59.

[38] Active Fire Sprinkler, Inc., 85-1 B.C.A. (CCH) ¶ 17,868 (allowing contractor to prevail when overlooking the cost of complying with environmental regulations was a mutual mistake of the parties, not a differing site condition).

[39] *See* BEDNAR, *supra* note 26, at 559-60.

[40] *See* BEDNAR, *supra* note 26, at 561, 606-09. The owner may also insert clauses regarding compliance with all laws and regulations, time extensions, delay damages, change orders, and site inspections, to name a few, in order to shift the risk to the contractor. *See* Robert A. Rubin & John E. Osborn, *How to Minimize the Environmental Liability of Construction Contractors*, 8 PRAC. REAL EST. LAW. 3, at 34-35 (May 1992).

[41] A disclaimer will not protect an owner when it falsely represents the site conditions. United States v. Spearin, 248 U.S. 132, 136-37 (1918).

[42] *See id.* at 137.

preventing it from having to continue with a project when the condition causes the job to become too costly.[43] Generally, however, the use of a differing site conditions clause will decrease the burden of proof on a contractor, making it easier for him to prevail against these defenses.[44]

B. Standard Differing Site Conditions Clauses[45]

To prevent contractors from including contingencies in their bids that protect them from the cost of unanticipated conditions, the federal government developed a risk-shifting clause entitled "Changed Conditions."[46] The clause was later modified, and renamed "Differing Site Conditions."[47] This clause has become a mainstay, with the Federal Acquisitions Regulations requiring the use of the Differing Site Conditions clause in all federal projects.[48] The current federal Differing Site Conditions clause reads, in pertinent part:

> (a) The Contractor shall promptly, and before the conditions are disturbed, give a written notice to the Contracting Officer of (1) subsurface or latent physical conditions at the site which differ materially from those indicated in this contract, or (2) unknown physical conditions at the site, of an unusual nature, which differ

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[43] CHANGED CONDITIONS, *supra* note 25, §12.4a, at 25-26.

[44] *See Foster*, 435 F.2d 873, 881 (Ct. Cl. 1970). Some courts will not allow contractors to simultaneously prevail on a claim redressable under the contract and a breach of contract claim. *See* Utley-James Inc. v. United States, 14 Cl. Ct. 804, 816 (1988); *but see* Baltimore Contractors, Inc. v. United States, 12 Cl. Ct. 328, 334 (1987) (claim for breach of contract may coexist with differing site conditions claim). Authorities also differ regarding whether a contractual claim under a differing site conditions clause may be made in conjunction with non-contractual common law claims. *Compare Foster*, 435 F.2d at 881 (claim under differing site conditions clause may be joined with a claim for misrepresentation) *with* Active Fire Sprinkler Corp.,85-1 B.C.A. (CCH) ¶ 17,868 (1984) (refusing to characterize the unanticipated presence of asbestos as a differing site conditions, but instead allocating the claim to mutual mistake). Thus, the presence of a differing site conditions clause may bar suits under misrepresentation or breach of implied warranty theories. BEDNAR, *supra* note 26, at 571.

[45] For a discussion of alternative contractual provisions that more expressly address environmental issues, *see infra* part III.B.

[46] CHANGED CONDITIONS, *supra* note 25, §12.3a; *see also* BEDNAR, *supra* note 26, at 569.

[47] BEDNAR, *supra* note 26, at 569. The modifications essentially involved renaming the clause to accurately reflect the subject matter to which it related and to expand the relief available to contractors. *See id.* at 570. The latter change avoided an interpretation of the clause which would not allow contractors to recover indirect costs of a differing site condition. *See* Rice v. United States, 317 U.S. 61, 67-68 (1942).

[48] 48 C.F.R. § 52.236-2 (1991); F.A.R. Form 23A.

> materially from those ordinarily encountered and generally recognized as inhering in work of the character provided for in the contract.
> (b) The Contracting Officer shall investigate the site conditions promptly after receiving the notice. If the conditions do materially so differ and cause an increase or decrease in the Contractor's cost of, or the time required for, performing any part of the work under this contract, whether or not changed as a result of the conditions, an equitable adjustment shall be made under this clause and the contract modified in writing accordingly.[49]

The standard contract forms issued by the American Institute of Architects (AIA) are the most widely used contract documents in private construction work.[50] The current AIA differing site conditions clause, titled "Claims for Concealed or Unknown Conditions," mirrors the federal differing site conditions clause.[51] The AIA Standard Contract Clause states:

> If conditions are encountered at the site which are (1) subsurface or otherwise concealed physical conditions which differ materially from those indicated in the contract documents or (2) unknown physical conditions of an unusual nature, which differ materially from those ordinarily found to exist and generally recognized as inherent in construction activities of the character provided for in the contract documents, then notice by the observing party shall be given to the other party promptly before conditions are disturbed and in no event later than 21 days after first observance of the conditions. The Architect will promptly investigate such conditions and, if they differ materially and cause an increase or decrease in the Contractor's cost of, or time required for, performance of any part of the work, will recommend an equitable adjustment in the contract sum or contract time, or both. If the Architect determines that the conditions at the site are not materially different from those indicated in the Contract Documents and that no change in the terms of the contract is justified, the Architect shall so notify the Owner and Contractor in writing, stating the reasons.[52]

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[49] 48 C.F.R. § 52.236-2 (1991); F.A.R. Form 23A.

[50] Justin Sweet, *The American Institute Of Architects: Dominant Actor In The Construction Documents Market*, 1991 WIS. L. REV. 317, (1991). Sweet argues that the AIA documents are so pervasive that they almost amount to private legislation. *Id.*

[51] *See* Hannan & Maloney, *supra* note 31, at 305-06.

[52] AIA Document A201, General Conditions for the Contract of Construction Art. 4.3.6 (1987 ed.). If the parties do not agree on an equitable adjustment, the issue is referred to the Architect, or is ultimately submitted to the disputes process set forth in the contract. *Id.*

Since the current AIA clause essentially adopts the provisions of the federal clause, courts interpreting the AIA clause may obtain guidance by referring to federal precedent on differing site conditions.[53]

The AIA and federal clauses do, however, differ to some extent. The most notable difference is in the respective provisions which require notice before the conditions are disturbed.[54] The AIA clause allows conditions to be disturbed after twenty-one days, while the federal clause provides no such leniency.[55] This notice requirement gives the owner the opportunity to investigate the undisturbed conditions.[56] Thus, while the federal clause may better achieve this purpose, if the owner responds promptly this difference in the clauses will have little effect. Another difference in the clauses is that the AIA clause only holds contractors responsible for reporting errors in contract documents actually discovered after a site investigation, while the federal clause also holds the contractor liable for errors it should have discovered had it performed a site investigation.[57]

C. Scope of Differing Site Conditions Clauses

The following discussion addresses the scope of the standard differing site conditions clause. This includes the type of conditions to which it applies, the parties involved, and the costs and relief parties may recover.

Historically, the differing site conditions clause was created because of the speculation involved with subsurface construction

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[53] Hannan & Maloney, *supra* note 31, at 306.

[54] Though the federal clause expressly provides for written notice, it has been interpreted broadly, permitting less under certain circumstances. *See* Mutual Construction Co., 80-2 B.C.A. (CCH) ¶ 14,630, at 72,157 (1980) ("a contractor's failure to give written notice is no bar to a claim if the government is otherwise aware of the operative facts surrounding the condition complained of"); Central Mechanical Constr., 85-2 B.C.A. (CCH) ¶ 18,061, at 90,659 (1985) (stating that written notice is not required if the government has actual or constructive notice of the conditions encountered and is not prejudiced by the lack of written notice).

[55] *Compare* AIA Document A201, Art. 4.3.6 (only mandates notice within 21 days of discovery of condition) *with* F.A.R. Form 23A (mandates notice and does not allow contractor to proceed without owner inspection).

[56] *Central Mechanical Constr.*, 85-2 B.C.A. (CCH) at 90,658.

[57] BEDNAR, *supra* note 26, at 573. The differences between the AIA and federal differing site conditions clauses are minor. *See* Hannan & Maloney, *supra* note 31, at 306 (similarities between AIA and federal differing site conditions clause allows courts deciding cases under AIA clause to seek guidance from the vast body of federal precedent). Because of the overwhelming similarity of the clauses, decisions under both clauses will be treated as a uniform body of law.

work.[58] Application of the clause today, however, extends beyond subsurface physical conditions to other unanticipated latent or concealed conditions.[59] A condition to which the clause is being applied will be characterized as either a Type I or Type II differing site condition.[60] For this condition to be within the scope of the differing site conditions clause, the condition must have existed before the contract was formed.[61] In addition, courts have refused to apply the clause to conditions caused by weather or other external forces and to non-physical conditions.[62] A contractor thus will be responsible for conditions that it creates or that occur after the contract is awarded.[63]

The scope of a differing site conditions clause can also extend to most environmental issues.[64] Accordingly, in addition to traditional differing site conditions, the clause may also effectively allocate environmental risks in a construction contract.

When a contractor prevails on a differing site conditions claim, the contractor can obtain an equitable adjustment in the contract for the costs or delays that occur because of the condition.[65] The equitable adjustment will also provide relief for indirect costs resulting

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[58] Beard, *supra* note 22, at 28. "The modern differing site conditions clause was developed in the public works contracting arena, including projects such as sewers, bridges, roads, tunnels, and dams. The cost and difficulty of these construction projects often depend substantially on the characteristics of the subsurface, . . . naturally occurring materials, and the presence or absence of water." *Id.; see also* Kaiser Indus. Corp v. United States, 340 F.2d 322, 329 (Ct. Cl. 1965) ("no one can ever know with certainty what will be found during subsurface operations").

[59] Beard, *supra* note 22, at 31.

[60] *Id.* at 30. Type I conditions include unforeseeable subsurface or latent site conditions that differ materially from the conditions indicated in the contract documents. Type II conditions consist of unknown or unusual site conditions that differ materially from those ordinarily encountered, or recognized as inherent, in the type of work involved. *Id.* at 30; *see also, infra* part I.D.

[61] *See* Appeal of Warner Electric, Inc., 85-2 B.C.A. (CCH) ¶18,131 (1985) (holding that regulation passed after contract began is not a differing site condition); *see also* BEDNAR, *supra* note 26, at 575.

[62] *See* BEDNAR, *supra* note 26, at 575-80.

[63] *See, e.g.*, Inman & Assoc., Inc., 91-3 B.C.A. (CCH) ¶ 24,048 (1991) (contractor responsible for PCB spill it caused on the job); *Warner Elec., Inc.*, 85-2 B.C.A. (CCH) ¶ 18,131 (cost incurred because of regulation that took effect after contract began was responsibility of contractor).

[64] *See infra* part II.

[65] *See* 48 C.F.R. 52.236-2 (1991); AIA Document A201 (1987); *see also*, Baltimore Contractors, Inc., 12 Cl. Ct. 328, 335 (1987) (contractor entitled to equitable adjustment for additional costs and delays). The standard differing site conditions clause also provides for an equitable adjustment for the owner when the unanticipated conditions decrease the contractor's cost to perform the job. BEDNAR, *supra* note 26, at 615.

from the differing site condition.[66] This process is not as straightforward as it appears, because "[d]amages resulting from differing site conditions are some of the most complex types of damages to compute and prove."[67] The contractor's equitable adjustment may be based on the increased costs it incurs relating to overhead,[68] labor,[69] equipment,[70] materials,[71] subcontractors,[72] delays,[73] and various other factors.[74] The contractor cannot obtain a full equitable adjustment for differing site conditions under certain circumstances: as when the contractor causes the condition;[75] when the condition does not cause the contractor to incur additional costs or delays;[76] or when the contractor places a contingency in its bid for the possibility of differing site conditions.[77] As when contracts generally did not contain differing site conditions clauses,[78] the owner typically may not escape liability for the costs simply by inserting a disclaimer or site investigation clause in conjunction with the differing site conditions clause.[79] These clauses allow the owner to prevail, however, if the contractor did not perform a reasonable investigation or if the parties expressly disclaimed the owner's liability for the costs in question.[80]

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[66] *See supra* note 47.

[67] Julian F. Hoffar et al., *Differing Site Conditions Claims, in* PROVING AND PRICING CONSTRUCTION CLAIMS 199, 235 (Robert F. Cushman & David A. Carpenter eds., 1990).

[68] *See* R.J. Crowley, Inc., 92-1 B.C.A. (CCH) ¶ 24,499, at 122,270 (1991).

[69] *See* Darwin Const. Co., 86-1 B.C.A. (CCH) ¶ 18,645 (1985); Fluidics, Inc., 84-2 B.C.A. (CCH) ¶ 17,327, at 96,340-41 (1984).

[70] *See Baltimore Contractors, Inc.*, 12 Cl. Ct. at 335.

[71] *See* W.S. Meadows Eng'g, Inc., 88-2 B.C.A. (CCH) ¶ 20,616, at 104,200 (1988).

[72] *See* Mutual Constr. Co., 80-2 B.C.A. (CCH) ¶ 14,630 (1980); William Lagnion, Contractor, 77-1 B.C.A. (CCH) ¶ 12,294, at 59,158 (1977).

[73] *See Fluidics, Inc.*, 84-2 B.C.A. (CCH) at 86,340-41; *W.S. Meadows Eng'g, Inc.*, 88-2 B.C.A. (CCH) at 104,201; *Baltimore Contractors, Inc.*, 12 Cl. Ct. at 335.

[74] *See generally* Hoffar, *supra* note 67, at 240-41.

[75] *See* Inman & Assoc., Inc., 91-3 B.C.A. (CCH) ¶ 24,048.

[76] *See William Lagnion, Contractor*, 77-1 B.C.A. (CCH) at 59,161 (although a Type I differing site conditions claim is established for the presence of a septic tank on a job site, the claim is denied when no costs were incurred because of this condition); Continental Heller Corp., 89-1 B.C.A. (CCH) ¶ 21,538 (1986) (finding insufficient evidence to support the claim that the removal of the unanticipated tanks delayed excavation of the remaining site). *Id.* at 108,420. *But see* BEDNAR, *supra* note 26, at 582 (an equitable adjustment may be allowed when there is a material difference in conditions, even if there is no material difference in the cost of doing the work).

[77] BEDNAR, *supra* note 26, at 612-13.

[78] *See supra* notes 40-42 and accompanying text.

[79] *See* Hoffar, *supra* note 67, at 218-21.

[80] *Id.* at 219-20. Federal law prevents federal agencies from disclaiming liability

Environmental issues may result in exorbitant costs on a construction project.[81] Various parties may be liable for the costs that relate to the presence of an unanticipated environmental issue. The architect or engineer, along with the owner, may be liable for inadequate representations regarding the condition of the site[82] or for the actions of their agents.[83] Moreover, the owner may hold a number of responsible parties liable for the costs of remediating hazardous substances.[84] An innocent contractor could also be burdened by the costs of these unanticipated environmental issues. To avoid this possibility, when a contractor incurs costs related to an environmental issue for which it is not responsible, the contractor should also receive an equitable adjustment for the additional costs that result from the unanticipated environmental condition, in addition to the costs and delays that a contractor incurs under typical differing site conditions scenarios. Accordingly, contractors should receive equitable adjustments for environmental costs associated with sampling or testing,[85] protective clothing,[86] environmental consultants,[87] regu-

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under a differing site conditions clause. *Id.* at 220.

[81] *See* Emmert & Murray, *supra* note 14, at 220-30. In addition to the costs affecting the completion of the current project, environmental issues may also have long term costs. The cleanup of a contaminated site is very costly and takes many years to complete. *See* Madsen, *supra* note 13, at 1,020. Likewise, some toxic substances may have long latency periods, with the harmful effects not being apparent for a number of years. *See* Reserve Mining v. EPA, 514 F.2d 492 (8th Cir. 1975) (noting that asbestos-related cancer may have a latency period of twenty years). Thus, both employees and unrelated third parties may bring unexpected future claims for these injuries. *See* Morford, *supra* note 6, at 1-2.

[82] *See* CHANGED CONDITIONS, §12.2c; Hannan & Maloney, *supra* note 31, at 314; *cf.* Kornblut, *supra* note 1, at 23-24 (noting that although many view architects and engineers as responsible for assessing environmental risks, they are not the proper parties to bear this risk).

[83] *See* United States v. Geppert Bros., Inc., 638 F. Supp. 996, 999 (E.D. Pa. 1986) (owner held liable under Clean Air Act for subcontractor's release of asbestos fibers). Moreover, government owners are not able to use the doctrine of sovereign immunity to avoid liability under some environmental laws. *See* B.F. Goodrich Co. v. Murtha, 958 F.2d 1192, 1198 (2d Cir. 1992) ("CERCLA expressly includes municipalities, states, and other political subdivisions" as subject to liability).

[84] *See* CERCLA, 42 U.S.C. §§ 9607(a) & 9613(f)(1) (1988).

[85] *See W.S. Meadows Eng'g, Inc.*, 88-2 B.C.A. (CCH) at 104,200 (contractor received equitable adjustment for costs associated with air quality testing because of unanticipated presence of toxic fumes at work site); *but see* Frank Lill & Son, Inc., 88-3 B.C.A. (CCH) ¶ 20,880, 105,583 (1988) (not allowed to recover for unanticipated costs associated with asbestos testing since contract provided that any testing costs would be responsibility of the contractor).

[86] *See W.S. Meadows Eng'g, Inc.*, 88-2 B.C.A. (CCH) at 104, 193-194 (contractor incurred unanticipated costs associated with use of protective clothing and respirators because of presence of toxic fumes); *Fluidics, Inc.*, 84-2 B.C.A. (CCH) at 86,340-41 (contractor incurred costs associated with use of protective clothing because of unanticipated

latory compliance,[88] and cleanup expenses.[89] The differing site conditions clause effectively allocates the risk for these unanticipated environmental costs.[90]

D. Types of Conditions to which a Differing Site Conditions Clause Applies

To prevail on a differing site conditions claim, the condition at issue must be characterized as either a Type I or II differing site condition. This characterization is important, since the burden of proof for the contractor is more difficult under Type II conditions. Courts have applied both categories to a variety of environmental issues.

1. Type I Conditions

"To recover for a Type I differing site condition, a contractor must prove it encountered a subsurface or latent physical condition differing materially from the conditions represented in the contract documents or implied from the language or methods described therein."[91] The elements of a Type I differing site conditions claim include:

> (a) whether the conditions encountered by plaintiff differed materially from those indicated in the contract documents, (b) could the [differing site] condition have been reasonably anticipated from the site examination and review of the contract documents, and (c) did [the contractor], in fact, rely on its interpretation of the

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presence of asbestos at work site).

[87] *See W.S. Meadows Eng'g, Inc.*, 88-2 B.C.A. (CCH) at 104,193 (government incurred unanticipated cost associated with environmental consulting firm).

[88] *See Inman & Assoc., Inc.*, 91-3 B.C.A. (CCH) at 120,367 (costs incurred complying with worker safety regulations after PCB release); *but see* Warner Elec., Inc., 85-2 B.C.A. (CCH) ¶ 18,131 (regulation implemented after contract has begun is not a differing site condition); Active Fire Sprinkler Corp., 85-1 B.C.A. (CCH) ¶ 17,868, *modified*, 85-3 B.C.A. (CCH) ¶ 18,217 (1985) (parties incurred costs from unanticipated compliance with asbestos regulations).

[89] *See Inman & Assoc., Inc.*, 91-3 B.C.A. (CCH) at 120,367 (delay and cleanup expenses resulting from PCB release); R.J. Crowley, Inc., 92-1 B.C.A. (CCH) ¶ 24,499 (1991) (delays incurred with cleanup of unanticipated asbestos).

[90] It could also be argued that an equitable adjustment should be made for even more tenuous costs, such as increased insurance costs that result from workers being injured by toxic substances while on the job. *See, e.g., W.S. Meadows, Inc.*, 88-2 B.C.A. (CCH) at 104,194 (high turnover of employees and worker injuries resulted from presence of unanticipated toxic fumes on job site).

[91] BEDNAR, *supra* note 26, at 582.

contract documents.[92]

The contractual representations need not be specific for a Type I condition to be found. Instead, they must simply provide indications which would cause a bidder to conclude that the conditions at the site do not differ from those in the contract.[93] Partial disclosure in the contract of known conditions may mislead a contractor as well.[94] The differences between the contract indications and actual conditions may concern factors such as subsurface conditions,[95] quantities,[96] or contractual omissions.[97]

A contractor is not required to perform an in-depth and detailed site investigation since "[f]aithful execution of the policy requires that the promise in the [differing site] condition clause not be frustrated by an expansive concept of the duty of bidders to investigate the site."[98] Thus, when the conditions do not permit, the investigation may simply involve a visual inspection of the exterior of the site to be worked on, instead of a probing search for latent conditions.[99] Likewise, questioning the owner's agents and referring to contract documents, when a physical inspection of the site is not possible, may be a sufficient site inspection.[100] Even if a contractor fails to perform a site inspection at all, it may still prevail under a claim of a Type I condition if a reasonable site investigation would not have revealed the condition anyway.[101] In addition to showing a reasonable site investigation was made, the contractor must also prove that it relied on the conditions indicated in the contract.[102]

Prevailing on a claim for a Type I differing site condition

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[92] Baltimore Contractors, Inc. v. United States, 12 Cl. Ct. 328, 333 (1987) (holding that difference between actual soil conditions and those depicted in the contract documents was a Type I differing site condition).

[93] *Foster*, 435 F.2d 873, 875 (Ct. Cl. 1970).

[94] *Baltimore Contractors*, 12 Cl. Ct. at 334.

[95] *See id.* at 333.

[96] *See* Frank Lill & Son, Inc., 88-3 B.C.A. (CCH) ¶ 20,880 (1988) (holding that while specifications did note the presence of asbestos, the quantity of asbestos was improperly indicated).

[97] *See* Darwin Constr. Co., 86-1 B.C.A. (CCH) ¶ 20,880 (1985) (contract documents failed to disclose that asbestos would change work required to remove ceiling); *Fluidics, Inc.*, 84-2 B.C.A. (CCH) at 86,340 (1984) (detailed nature of contract documents permitted a contractual omission to be considered a Type I condition).

[98] *Foster*, 435 F.2d at 887.

[99] *See Darwin Constr. Co.*, 86-1 B.C.A. (CCH) at 93,688; Fluidics, Inc., 84-2 B.C.A. (CCH) ¶ 17,327.

[100] *See Frank Lill & Son, Inc.*, 88-3 B.C.A. (CCH) at 105,583.

[101] *See* Mutual Constr. Co., Inc., 80-2 B.C.A. (CCH) ¶ 14,630, 72,158 (1980).

[102] *See Fluidics, Inc.*, 84-2 B.C.A. (CCH) at 86,340.

requires a lesser burden for the contractor than a claim for misrepresentation.[103] Under misrepresentation, the contractor must prove owner fault, while a Type I condition must simply differ from conditions indicated in the contract.[104] Proving a Type II condition, however, is much more difficult.[105]

Like other construction conditions, environmental issues may also be characterized as Type I differing site conditions. Asbestos was commonly used as a material in construction, with the presence of the substance often not apparent to the naked eye.[106] Characterizing the material as non-asbestos thus may be a misleading contractual representation on which contractors may rely.[107] In addition, although the presence of asbestos or other hazardous substances may be anticipated to a certain degree in some renovation contracts, quantities or characteristics which differ from those in the contract may be characterized as a Type I condition.[108] Because of the dangers associated with some toxic substances, the owner should reveal all conditions of which it is aware. Should government owners have knowledge of the presence of toxic substances, they may even have a duty to disclose this superior knowledge:

> [When toxic substances are present], we believe, the party possessing actual knowledge has a higher duty to reveal because of the greater likelihood that the presence of such a substance would affect the cost of the project and because a reasonable contractor who is not required by the contract to test for toxic substances would be lulled into complacency by the failure to reveal the presence of such a substance. In this very real sense, appellant was effectively misled.[109]

Moreover, because of the lesser burden of proof, it is apparent that

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[103] *Foster*, 435 F.2d at 881.

[104] *Id.*

[105] *See infra* notes 116-118 and accompanying text.

[106] *See* Universal Contracting & Brick Pointing Co. v. United States, 19 Cl. Ct. 785, 786-787 (1990) (contractor and owner did not realize exterior wall resurfacer contained asbestos until after contract began); *see also* Hummel, *supra* note 6, at 12.

[107] *Universal Contracting & Brick Pointing Co.*, 19 Cl. Ct. at 789.

[108] *See Fluidics, Inc.*, 84-2 B.C.A. (CCH) at 86,340 (although contract indicated that "incidental contact" with asbestos could occur in the work area, it failed to accurately convey the abundance of actual asbestos present); *Frank Lill & Son, Inc.*, 88-3 B.C.A. (CCH) at 105,584 ("latent condition was not as to the existence of asbestos at the site, which the contract indicated, but as to the quantity of asbestos which required removal").

[109] Active Fire Sprinkler Corp., 85-1 B.C.A. (CCH) ¶ 17,868, 89,481 (1984), *modified*, 85-3 B.C.A. (CCH) ¶18,217 (1985); see also R.J. Crowley, Inc., 92-1 B.C.A. (CCH) ¶ 24,499, 122,270 (1991).

contractors would wish to characterize an environmental issue as a Type I differing site condition.

2. Type II Conditions

To prove a claim for a Type II condition, the contractor must show the conditions were "unknown" and "of an unusual nature, which differ materially from those ordinarily encountered and generally recognized as inhering in work of the character provided for in the contract."[110] A Type II differing site condition will not have the same relationship to the contract documents that a Type I condition must have. When the contract documents are silent as to the physical conditions of the site, a contractor can only make a Type II claim.[111]

Because of the lack of contractual indications regarding site conditions, a contractor must perform a more in-depth site investigation to prevail on a claim for a Type II condition. When claiming a Type II condition, however, bidders may still rely on information given to them by the owner.[112] If a reasonable investigation of the site and documents does not reveal the condition, the condition may be considered "unknown" by the contractor.[113] A condition will be "unusual" when it significantly deviates from normal conditions for the area.[114] Failure to investigate will not prevent a contractor from prevailing if, in any event, it would not have discovered the unusual or unknown condition.[115]

There is a heavy burden of proof for a contractor seeking to establish a Type II differing site condition.[116] The contractor must prove the conditions were unknown or unusual instead of simply comparing them with the contractual indications.[117] With a Type I condition, the owner has,

> with relative precision, represented the subsurface or latent physical conditions to be encountered, and if it turns out that they have been materially misrepresented, a claim has been established. Un-

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[110] 48 C.F.R. 52.236-2 (1991); *see also* AIA Document A201, Art. 4.3.6 (1987).

[111] *See Mutual Constr. Co.*, 80-2 B.C.A. (CCH) at 72,158.

[112] *Baltimore Contractors, Inc.*, 12 Cl. Ct. at 328, 335 (1987).

[113] *R.J. Crowley, Inc.*, 92-1 B.C.A. (CCH) at 122,270.

[114] *Id.*

[115] *Id.*

[116] *Mutual Constr. Co.*, 80-2 B.C.A. (CCH) at 72,158.

[117] *See* Charles T. Parker Constr. Co. v. United States, 433 F.2d 771, 778 (Ct. Cl. 1970).

> der [Type II], in contrast, the [owner] has elected not to presurvey and represent the subsurface conditions with the result that a claimant must demonstrate that he has encountered something materially different from the "known" and the "usual." This is necessarily a stiffer test because of the wide variety of materials ordinarily encountered when excavating in the earth's crust.[118]

Type II conditions are more subjective, and depend on the individual experience of the contractor.[119]

Because of the differing burdens of proof, whether the condition is characterized as Type I or II is an important issue. Some decisions appear to manipulate the elements of each category,[120] while others seem to ignore the distinctions altogether.[121] Whether a condition is Type I or II may also be determined from the parties' prior knowledge of the condition.[122] A condition will be Type I, instead of Type II, if the parties were aware of the possibility of encountering the condition.[123]

Many types of environmental issues have been characterized as Type II differing site conditions. When a contractor encounters unanticipated contaminants, these unanticipated substances are arguably unknown or unusual conditions.[124] Although the presence of some water on a construction site may be expected, for example, the presence of large quantities of contaminated water will be a Type II condition.[125] Likewise, the unanticipated presence of toxic fumes at an ordinary work site also would be considered unusual.[126] As with Type I conditions, because they are in a better position to

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[118] *Id.*

[119] BEDNAR, *supra* note 26, at 592.

[120] *See* W.S. Meadows Eng'g, Inc., 88-2 B.C.A. (CCH) ¶ 20,616 (1988); R.J. Crowley, Inc., 92-1 B.C.A. (CCH) ¶ 24,499.

[121] *See* Active Fire Sprinkler Corp., 85-1 B.C.A. (CCH) ¶ 17,868, *modified*, 85-3 B.C.A. (CCH) ¶ 18,217 (1985); Utley-James, Inc. v. United States, 14 Cl. Ct. 804, 816-817 (1988) (characterizing condition as Type I, even though "the contract was silent" as to the physical condition at issue).

[122] *Utley-James, Inc.*, 14 Cl. Ct. at 817.

[123] *Id.* This awareness leads to the conclusion that "conditions of an unusual nature" were not encountered, but, instead, that the conditions were Type I because they "differ[ed] materially from those indicated in the contract." *Id.*

[124] *See Mutual Constr. Co.*, 80-2 B.C.A. (CCH) at 72,158 (oil sump on work site was category II condition); *R.J. Crowley, Inc.*, 92-1 B.C.A. (CCH) at 122,270 (unanticipated presence of asbestos in work area was Type II condition).

[125] *Baltimore Contractors*, 12 Cl. Ct. at 335 (resulting in contractor obtaining an equitable adjustment for cleanup of sewage on site).

[126] *See W.S. Meadows Eng'g, Inc.*, 88-2 B.C.A. (CCH) at 104,200 (jet fuel in culvert was a Type II condition).

know of the condition than the bidder, government owners also have a duty to inform bidders of the presence of hazardous substances which would be characterized as Type II conditions.[127] Unless the condition is clearly unusual or unknown, contractors who encounter an environmentally related differing site condition may wish to characterize it as a Type I condition which was omitted from the contract documents because of the lesser burden of proof under Type I conditions.

II. ENVIRONMENTAL SCENARIOS WHERE DIFFERING SITE CONDITIONS CLAUSES CAN APPLY

Differing site conditions claims will arise under a number of environmental scenarios. Functionally, most of these claims separate into two distinct groups: (A) those claims that arise from environmental hazards expected to be encountered in a contract for remediation or renovation, and (B) those claims that arise when a contractor unexpectedly encounters environmental issues on a job.[128] At first glance, it would appear that Scenario A would be analogous to a Type I condition and Scenario B to a Type II condition. This, however, does not hold true in practice. The courts have used consistent reasoning when applying the differing site conditions clause in Scenario A but, perhaps because of the unexpected nature of the environmental issue, have applied the clause inconsistently in Scenario B.

A. Scenario A: Contracting for Remediation of Known Environmental Hazards

As many as 30,000 sites in the United States are thought to be contaminated with toxic chemicals.[129] According to the mandates of CERCLA, remediation contractors clean up these sites at the expense of either the government or private industry.[130] Unlike the relative certainty that exists in conventional contracting, remediation contracting involves numerous variables. The scope of hazardous

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[127] *See R.J. Crowley, Inc.*, 92-1 B.C.A. (CCH) at 122,270; *see supra* note 109 and accompanying text.

[128] These claims will be labeled Scenario A and Scenario B, respectively, for the purposes of this article.

[129] *See Executive Summary of EPA Alternative Superfund Contracting Strategy Report*, 22 Env't Rep. (BNA) 1,505 (Oct. 4, 1991).

[130] *See id.* at 1,507.

waste disposal or cleanup work is often poorly defined at the time of the contract.[131] Despite in-depth investigations, because of the nature of hazardous substances, the character, location, or quantity of waste may be uncertain.[132] Cleanup contractors also must contend with extensive and costly rules and regulations.[133] Moreover, once a remediation begins, additional releases may cause the site to become more contaminated.[134] Fortunately, the existing body of construction law has been interpreted to cover hazardous waste removal or cleanup contracting.[135] To protect themselves from the possible risks, remediation contractors should insist on a differing site conditions clause that will apply to unanticipated environmental issues.

Like the remediation of contaminated sites, asbestos abatement would also be classified as a Scenario A environmental issue. The construction industry used over thirty million tons of this toxic material between 1900 and 1980.[136] As a result, asbestos abatement became a popular and profitable form of construction work.[137] Nevertheless, few parties today wish to admit responsibility for overseeing asbestos abatement on a job.[138] Claims may be made under a differing site conditions clause for unexpected costs incurred during asbestos abatement, including unanticipated site conditions, changes in regulations, changes in available disposal

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[131] Charness & Drattell, *supra* note 7, at 208.

[132] Beard, *supra* note 22, at 39.

[133] Peter W. Tunnicliffe & Carolyn M. Kiely, *Counseling Cleanup Contractors on CERCLA Liability*, 8 PRAC. REAL EST. LAW. 6, at 52-53 (Nov. 1992).

[134] *See* Inman & Assoc., Inc., 91-3 B.C.A. (CCH) ¶ 24,048 (1991).

[135] *See* Charness & Drattell, *supra* note 7, at 208.

[136] Hummel, *supra* note 6, at 12. Hummel argues that, because of the common use of the substance, contractors in renovation and remodeling projects should always assume the presence of asbestos when entering a contract. *Id.* at 21. This assumed *knowledge* of the condition would seem to convert a potential Scenario B into a Scenario A, since it would implicitly anticipate the existence of the asbestos. This assumption, however, would defeat the purpose of the differing site conditions clause by causing contractors to, once again, include a contingency for the risk of asbestos related costs. *See supra* notes 24-29 and accompanying text.

[137] John E. Osborn, *Litigation Pertaining to Asbestos Contracting*, *in* DIFFERING SITE CONDITION CLAIMS 239, 244 (Robert F. Cushman & David R. Tortorello eds., 1992). The asbestos abatement industry is expected to gross $100 billion in revenues in the next twenty-five years. Morford, *supra* note 6, at 2 (citing Richman, *Why Throw Money at Asbestos?*, FORTUNE, June 6, 1988, at 155-58).

[138] Osborn, *supra* note 137, at 243. Much responsibility accompanies the presence of asbestos. A construction project containing asbestos may be subject to regulation under the Clean Air Act, OSHA, Asbestos Hazard Emergency Response Act, CERCLA, and other state and local laws. *See generally* Morford, *supra* note 6, at 2-13.

sites, and other costs associated with site access.[139]

The courts have characterized most of the environmental cases encompassed by Scenario A as Type I conditions. When a cleanup contractor encounters a substantially greater quantity of hazardous material at the site than specified in the contract, the contractor can obtain relief for a Type I differing site condition.[140] Also, when a renovation contractor encounters more asbestos than it expected, it will be entitled to relief for a Type I condition.[141] The differing site conditions clause, however, does not apply to all unexpected environmental costs.[142]

The Type I requirement that the condition must differ from the contractually indicated conditions[143] probably is the basis for the courts' characterization of Scenario A situations as Type I conditions. Because the purpose of the remediation contract is the presence of hazardous substances, any differing conditions are logically characterized as simply differing from the contract indications.

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[139] *See* Osborn, *supra* note 137, at 246-49; *but see* Warner Elec., Inc., 85-2 B.C.A. (CCH) ¶ 18,131, 90,997-98 (1985) (holding that change in EPA regulation during construction contract is not a differing site condition).

[140] *See* Charness & Drattell, *supra* note 7, at 217 (discussing the experience of EBASCO Corp. when cleaning up the Rocky Mountain Arsenal).

[141] *See Darwin Constr. Co.*, 86-1 B.C.A. (CCH) at 93,688; *Frank Lill & Son, Inc.*, 88-3 B.C.A. (CCH) at 105,584.

[142] It should be noted that conditions which would not be covered by the standard differing site conditions clause should not be brought within the scope of the clause simply because they are environmentally related. A remediation contractor will not be allowed relief under a differing site conditions clause for costs incurred when it causes an additional release. *See* Inman & Assoc., Inc., 91-3 B.C.A. (CCH) ¶ 24,048. Costs incurred because of environmental conditions that are apparent upon reasonable inspection, that are indicated in the contract documents, or those that were known by the party making the claim also are outside the scope of the clause. *See* Geo-Con, Inc., 94-1 B.C.A. (CCH) ¶ 26,359, 131,131 (1993) (remediation contractor may not recover under Type I or II condition claim for costs incurred because of "off-gassing" at contaminated site when it was aware that prior contractors had confronted similar problems and contract was replete with warnings about the seriousness of the problem).

[143] *See supra* notes 91-97 and accompanying text.

B. Scenario B: Discovery of Unknown Environmental Conditions on Job Site

The courts appear less consistent when applying the differing site conditions clause to claims arising under Scenario B. These issues arise when a contractor unexpectedly encounters a hazardous substance on the work site.[144] Renovation contractors can unexpectedly confront asbestos on the work site, rendering previous construction budgets and schedules meaningless.[145] In addition to hazardous substances, Scenario B issues also could arise because of an unanticipated requirement to comply with a regulation that affects the work site.[146] Accordingly, a court may characterize the unknown presence of protected wetlands or an endangered species as Scenario B differing site conditions which causes the contractor to incur costs.[147] Because of the possibility of incurring costs associated with these unanticipated environmental issues, all contractors, regardless of the type of contract, should draft the contract to include unanticipated environmental issues within its scope.

Unlike the consistent treatment of Scenario A cases,[148] the courts have inconsistently applied the differing site conditions clause to Scenario B. Because the courts have used inconsistent reasoning to allow Scenario B contractors to prevail on a differing site conditions claim for the unanticipated presence of asbestos, such conditions have been characterized as both Type I and II.[149] Nevertheless, courts have generally characterized the discovery of unexpected

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[144] A remediation contractor, who would typically encounter Scenario A issues, may also be confronted with Scenario B issues. For example, when performing asbestos abatement, the contractor unexpectedly discovers hazardous chemicals at the site and incurs expenses associated with this differing site condition.

[145] Hummel, *supra* note 6, at 10-11.

[146] *See Active Fire Sprinkler Corp.*, 85-1 B.C.A. (CCH) at 89,478-79.

[147] *See, e.g.*, TVA v. Hill, 437 U.S. 153 (1978) (unexpected presence of endangered "snail darter" delays construction of dam); Lane Construction Corp., 94-1 B.C.A. (CCH) ¶ 26,358 (1993) (bridge construction project is delayed and additional costs are incurred when permit has to be acquired for the unexpected presence of regulated wetlands on the site).

[148] *See supra* notes 140-43 and accompanying text.

[149] *Compare Fluidics, Inc.*, 84-2 B.C.A. (CCH) at 86,340 (unanticipated presence of loose asbestos is Type I condition) *with R.J. Crowley, Inc.*, 92-1 B.C.A. (CCH) at 122,270 (unanticipated asbestos is Type II condition). In *Active Fire Sprinkler*, the costs associated with the unanticipated presence of asbestos was characterized as not being a differing site condition at all. 85-1 B.C.A. (CCH) ¶17,868. Instead, the court decided that oversight of the condition by both parties was a mutual mistake. *Id.* at 89,479.

subsurface environmental issues as a Type II condition.[150]

In some cases, the courts have used unique arguments to allow the contractor to recover costs associated with a differing site condition. In *Active Fire Sprinkler Corp.*,[151] the plaintiff incurred additional costs when it unexpectedly encountered asbestos fibers while installing fire sprinklers in a federal office building. Although the contract contained a differing site conditions clause, the GSA Board of Contract Appeals did not rely on that provision.[152] Instead, the Board held that the parties committed a mutual mistake by not realizing the applicability of federal regulations to the work being performed.[153] Instead of apportioning the costs equally, as in past mutual mistake cases, the Board held that the Government was responsible for all costs because it gained all of the benefits.[154] It would appear as if the Board did not feel comfortable describing a *regulation* as a differing site condition.[155] By focusing on the physical presence of the asbestos, instead of the regulation, the unanticipated asbestos shards logically could have been characterized as a differing site condition. Although the outcome is the same as if the Board of Contract Appeals had relied on the differing site conditions clause, the Board used weak reasoning to allow the contractor to recover when it was equally responsible for the mutual mistake. Reliance on the differing site conditions clause, the express contractual intent of the parties, would have allowed the Board to more adequately support the result.

In *Utley-James, Inc. v. United States*,[156] the plaintiff-contractor tried to argue that costs it incurred because of the unanticipated presence of a contaminated artesian well were not a differing site

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[150] *See* Baltimore Contractors, Inc. v. United States, 12 Cl. Ct. 328, 334-35 (1987) (contaminated ground water); Continental Heller Corp., 89-1 B.C.A. (CCH) ¶ 21,538 (1986) (underground storage tanks); Mutual Constr. Co., 80-2 B.C.A. (CCH) ¶ 14,630 (1988) (subsurface oil sump); *W.S. Meadows Eng'g, Inc.*, 88-2 B.C.A. (CCH), 104,200 (jet fuel in underground culvert).

[151] Active Fire Sprinkler, 85-1 B.C.A. (CCH) ¶ 17,868, *modified*, 85-3 B.C.A. (CCH) ¶ 18,217 (1985).

[152] *See id.* at 89,479-81.

[153] *Id.* The court also awarded damages to the plaintiff for costs it incurred when the contracting officer imposed greater safety measures on it than required by law or regulations. *Id.* at 89,480. The court, however, appropriately characterized these costs as attributable to the Changes clause of the contract and not under the mutual mistake or differing site conditions theories. *See id.* at 89,480.

[154] *Id.*

[155] *Cf. Warner Elec., Inc.*, 85-2 B.C.A. (CCH) at 40,997-98 (refusing to characterize a change in EPA regulation during the contract as a differing site condition).

[156] *Utley-James, Inc.*, 14 Cl. Ct. at 816 (1988).

condition under the contract. Instead, the plaintiff argued the specifications were defective.[157] The court would not allow the plaintiff's argument to stand and, unlike *Active Fire Sprinkler*, correctly characterized the unforeseen conditions as within the scope of the differing site conditions clause.[158]

In *Utley-James*, however, the court did not clearly characterize the presence of contaminated water as a Type I or Type II condition.[159] The opinion expressly states that "[t]he contract was silent as to the presence or absence of artesian water."[160] This would appear to characterize the claim as a Type II condition, since there were no indications in the contract documents. The court further states, however, that both the contractor and owner should have been aware of the possibility of finding the contaminated water since it was a matter of common knowledge.[161] This appears to prevent the condition from being unusual or unexpected and, thus, not a Type II condition either.

These scenarios raise an important issue: Should courts treat Scenario B environmental issues as Type I or Type II differing site conditions? Arguably, the contractor would rather have them labeled Type I, because of the lessened burden of proof. In fact, some courts have characterized what would appear to be Type II conditions as Type I conditions. Courts have held that the *omission* of indications from the contract documents about a site condition is still a contractual indication of the site conditions.[162] Under this theory, the contractual omission ties the claim to the contract, and the contractor need not show the condition was unusual or un-

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[157] *Id.*

[158] *See Utley-James, Inc.*, 14 Cl. Ct. at 816 (refusing to allow contractor to argue both defective specification and differing site conditions claims); *but see Baltimore Contractors, Inc.*, 12 Cl. Ct. at 344 (1987) (claim for contract may be brought with a differing site conditions claim).

[159] *See Utley-James, Inc.*, 14 Cl. Ct. at 816-18.

[160] *Id.* at 816.

[161] *See id.*

[162] *See Fluidics, Inc.*, 84-2 B.C.A. (CCH) at 86,340 (concluding that the detailed nature of the rest of the contract documents permitted an omission by the architect regarding the condition of asbestos at work site to be considered a Type I latent condition); *but see* William Lagnion, Contractor, 77-1 B.C.A. (CCH) ¶ 12,294 (1977) (failure to specifically mention a site condition does not constitute a representation that the conditions do not exist).

known.[163] By lessening the burden of proof, characterizing contractual omissions as Type I conditions could help contractors recover costs related to Scenario B environmental issues.

III. HOW TO ACCOMODATE CONTRACTS FOR ENVIRONMENTAL DIFFERING SITE CONDITIONS

Parties to a construction contract should use the differing site conditions clause to allocate the risks associated with unanticipated environmental costs. To ensure proper risk allocation, the parties can incorporate one of several versions into their contract. The parties may employ the standard differing site conditions clauses, with the express understanding that environmental issues are within its scope. Likewise, the parties may draft the contract with alternative clauses which expressly address specific environmental issues.

A. Allocation of Risk Under the Standard Differing Site Conditions Clause

Parties may properly allocate the risk of an environmental differing site condition under the current standard clauses. All of the cases discussed in this article were decided under the standard differing site conditions clause without any detailed environmental provisions altering it. Utilizing this clause without providing expressly for environmental issues may be advantageous since it allows the current clause to cover a broader scope of conditions.[164]

Many differing site conditions claims may be completely avoided by an owner if the owner carefully selects the construction site.[165] This may involve performing an environmental site assessment and research into the prior uses of the property.[166] For renovations, knowing the date of construction of an existing building

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[163] One commentator, Gregory W. Hummel, would possibly support this argument. Hummel argues that a claim for a Type II condition cannot be made regarding the discovery of unanticipated asbestos, since all renovation contractors should be aware of the prevalent use of asbestos in the past. *See* Hummel, *supra* note 6, at 26-27.

[164] For example, the courts have already imposed a duty on the government to tell bidders of the presence of any toxic substances on a job site. *See Active Fire Sprinkler Corp.*, 85-1 B.C.A. (CCH) at 89,489; *see also supra* note 109 and accompanying text.

[165] *See* Howard W. Ashcraft, Jr., *Avoiding and Managing Risk of Differing Site Conditions*, *in* DIFFERING SITE CONDITION CLAIMS 1, 2-3 (Robert F. Cushman & David R. Tortorello eds., 1992).

[166] *Id.* at 3.

could provide insight into the probability of asbestos.[167] Before bidding, the contractor should perform adequate site investigations as well.[168] In addition to the differing site conditions clause, the parties can also incorporate other contractual clauses that will indirectly affect the liability for differing site conditions.[169] Incorporating an alternative dispute resolution clause provision helps avoid the costs of litigation should a dispute arise over a differing site condition.[170]

The parties cannot anticipate all of the risks associated with a construction project. Unexpected conditions will arise. Thus, detailed contract drafting, which includes all of the anticipated conditions, may not be advantageous. When unanticipated conditions arise under a contract which attempts to anticipate all risks, the exclusion of the unexpected conditions from the contract can cause the contractor to unwittingly incur the costs.[171]

B. Alternative Contractual Language

The parties can also anticipate the presence of environmental issues by expressly providing for them in the construction contract. The AIA prepared a provision to address the safety hazards parties can encounter when asbestos or PCB is discovered on a site:

> In the event the Contractor encounters on the site material reasonably believed to be asbestos or polychlorinated biphenyl (PCB) which has not been rendered harmless, the Contractor shall immediately stop Work in the area affected and report the condition to the owner and architect in writing. The Work in the affected area shall not thereafter be resumed except by written agreement of the Owner and Contractor if in fact the material is asbestos or . . . (PCB) and has not been rendered harmless. The Work in the affected area shall be resumed in the absence of asbestos or . . . (PCB) or when it has been rendered harmless, by written agreement of the Owner and Contractor, or in accordance with final determination by the Architect.[172]

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[167] Hummel, *supra* note 6, at 21.

[168] *See supra* notes 98-101, 112-115 and accompanying text.

[169] *See* Ashcraft, *supra* note 165, at 3-4. These clauses may, of course, also be drafted so that the risk is shifted to the contractor. *See* Rubin & Osborn, *supra* note 40, at 34-37.

[170] *See generally* Keith W. Hunter & Jim Hoenig, *Dispute Resolution and Avoidance Techniques in the Construction Industry*, 47 ARB. J. 3, 16 (Sept. 1992).

[171] *See infra* notes 176-177 and accompanying text.

[172] AIA Document A201, Art. 10.1.2 (1987), *reprinted in* WERNER SABO, LEGAL

This is the first instance in which the AIA has addressed environmental issues in its more than seventy-five years of publishing standard form agreements.[173] The AIA drafted this provision to reflect the industry's concern for the presence of hazardous materials on the work site and to allocate responsibility for their removal.[174] The clause reflects the view that asbestos and PCBs should be the responsibility of the owner.[175]

This provision has been vehemently criticized as inadequately addressing the hazardous substances issue.[176] The clause also demonstrates a problem that can result when the drafters of a contract try to make the contract all-inclusive. Ultimately something will be left out. Accordingly, it is recommended that the words "pollutants" and "other hazardous materials" be added to the language of the clause, to give it broader application.[177] The provision also fails to address whether delay costs, incurred when the substances are being remediated, will be the responsibility of the owner or the contractor. The California Associated General Contractors argues the provision is not necessary since the differing site conditions clause will adequately address "other material removal which is governed by the doctrine of strict liability."[178] Including the costs and delays associated with remediation of asbestos or PCBs within the scope of the differing site conditions clause will more adequately allocate the risk than this alternative provision.

The Engineers' Joint Contract Documents Committee (EJCDC) has drafted a provision similar to Article 10.1.2 of AIA A201 that better addresses the issue of hazardous substances.[179] The applicable sections read:

> 4.5.1 OWNER shall be responsible for any Asbestos, PCBs, Petroleum, Hazardous Waste or Radioactive Material uncovered or revealed at the site which was not shown or indicated in the Drawings or Specifications or identified in the Contract Docu-

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GUIDE TO AIA DOCUMENTS 306 (3d ed., 1991).

[173] Hummel, *supra* note 6, at 10.

[174] JAMES E. STEPHENSON, ALTERNATIVE CLAUSES TO STANDARD CONSTRUCTION CONTRACTS 423 (1992).

[175] *Id.* Of course, the owner can better protect itself by providing guidelines for when work will resume since the contractor could theoretically use the clause to sporadically stop work or effectively terminate the contract. *Id.* at 304.

[176] *See* JUSTIN SWEET, SWEET ON CONSTRUCTION INDUSTRY CONTRACTS: MAJOR AIA DOCUMENTS 435 (2d ed., 1992).

[177] STEPHENSON, *supra* note 174, at 304; *see also* SWEET, *supra* note 176, at 433.

[178] SWEET, *supra* note 176, at 434.

[179] *See id.* at 435.

> ments to be within the scope of the Work and which may present a substantial danger to persons or property exposed thereto.
> 4.5.2 CONTRACTOR shall immediately: (i) stop all Work in connection with such hazardous condition and in any area affected thereby. CONTRACTOR shall not be required to resume Work in connection with such hazardous condition or in any such affected area until after OWNER has obtained any required permits related thereto and delivered to CONTRACTOR special written notice.
> 4.5.3 If after receipt of such special written notice CONTRACTOR does not agree to resume such Work based on a reasonable belief it is unsafe, or does not agree to resume such Work stoppage under such special conditions, then Owner may order such portion of the Work that is in connection with such hazardous condition or in such affected area to be deleted from the Work.[180]

This provision has better definitions than the AIA version, and provides for more reasonable responses when conditions are encountered. Like the AIA provision, however, this provision also fails to address issues that may be within the scope of a broad reading of the differing site conditions clause.[181] Under these provisions, disputes still may arise regarding liability for delays and other incidental costs associated with the discovery of the hazardous substance. Likewise, the precise wording of these provisions exclusively addresses hazardous substances and provide no relief for costs incurred while complying with environmental regulations for unanticipated wetlands or endangered species.

Another option for the contract drafter is to include a provision in the differing site conditions clause itself which would expressly incorporate environmental issues within the scope of the clause. Care must be taken, because overly precise provisions, which expressly limit the environmental issues that are covered,[182] may be self-defeating. Ultimately, a detailed clause could be interpreted as an indication that unanticipated environmental issues that do arise, but are not included in the provision, are not intended to be within the scope of the differing site conditions clause. A broad reading of

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[180] EJCDC No. 1910-8 (1990), *reprinted in* Osborn, *supra* note 137, at 252.

[181] "Prototype contracts . . . can cause problems. No matter how well-devised, such contracts can pose problems of 'fit.' An ill-fitting standard contract, one which does not fulfill the objective of the parties, . . . creates administrative and legal difficulties." Sweet, *supra* note 50, at 318.

[182] *See, e.g.*, AIA Document A201, Art. 10.1.2. (1987); *see supra* notes 176-77 and accompanying text.

the standard differing site conditions clause may avoid these problems.

CONCLUSION

The construction industry is intricately involved with many environmental issues. Parties to a construction project bear the risk of incurring substantial costs and delays as a result of the discovery of an unanticipated environmental condition. Although careful site selection and investigations may help prevent some unanticipated risks from arising, parties can never avoid all risk.

Accordingly, the construction industry should anticipate these risks and allocate them intelligently before signing the contract. Precise contractual provisions explicitly addressing the anticipated environmental conditions are often problematic, however, since all risks cannot be anticipated and the detailed language tends to exclude other types of environmental issues not expressly included.

Current case law suggests courts may broadly interpret the standard differing site conditions clause as applying to many of these environmental conditions. Such an interpretation would fulfill the original policies behind the federal government's creation of the differing site conditions clause — keeping bids low by allowing contractors to shift the risk of unanticipated conditions to the owner — while failing to broadly interpret the clause will once again cause contractors to add a contingency element to their bids. Whichever format is employed, by recognizing the risks of these environmental issues, and properly allocating the risks before encountered, both the contractor and owner can make more intelligent and profitable decisions regarding the construction project.